What is claimed is:

- 1. A radiation-curable composition comprising:
 - (i) a cationically polymerizable component;
 - (ii) a cationic photoinitiator;
 - (iii) a free radical polymerizable component other than caprolactone acrylate; and
 - (iv) a free radical photoinitiator;

wherein the composition, after cure, has a clarity of more than 90%.

- 2. The composition of claim 1, wherein said free radical polymerizing component is selected from the group consisting of:
 - (a) non-aromatic free radical polymerizable components comprising at least one C_1 - C_{10} ether group; and
 - (b) aromatic free radical polymerizable components comprising more than four C_1 - C_{10} ether groups.
- 3. The composition of claim 1, wherein said free radical polymerizable component is represented by the following formula (3):

$$X - [(O-R)_m - A]_n$$
 (3)

wherein

X represents a branched or unbranched aliphatic group comprising 1-10 carbon atoms; n represents an integer from 1 to 6;

each R independently represents a branched or unbranched aliphatic group comprising from 1-10 carbon atoms;

each m independently represents an integer from 0-10;

at least one m represents an integer of at least 1; and

each A independently represents a free radical polymerizable group.

4. The composition of claim 1, wherein said free radical polymerizing component is selected from the group consisting of alkoxylated bisphenol A diacrylate, tripropyleneglycol diacrylate, polypropyleneglycol dimethacrylate, alkoxylated neopentylglycol diacrylate,

alkoxylated hexanediol diacrylate, polytetrahydrofuran diacrylate, and alkoxylated trimethylolpropane triacrylate.

- 5. The composition of claim 1, wherein said free radical polymerizing component component is a diacrylate component.
- 6. The composition of claim 5, further comprising a free radical polymerizable component having at least three radiation-curable groups.
- 7. The composition of claim 1, wherein said composition further comprises caprolactone acrylate.
- 8. A process for producing a three-dimensional object comprising rapid prototyping the composition of claim 1.
- 9. A three dimensional object obtained by the process of claim 8.
- 10. A radiation-curable composition comprising:
 - (i) a cationically polymerizable component;
 - (ii) a first free radical polymerizable component, said first free radical component being selected from the group consisting of
 - (a) non-aromatic free radical polymerizable components comprising at least one C_1 - C_{10} ether group;
 - (b) aromatic free radical polymerizable components comprising more than four C_1 - C_{10} ether groups; and
 - (iii) a second free radical polymerizable component other than said first free radical polymerizable component.

wherein said composition, after cure, has a clarity ratio greater than 1.03.

- 11. The radiation-curable composition of claim 10, wherein said first free radical polymerizable component comprises at least two acrylate groups.
- 12. The radiation-curable composition of claim 10, wherein said first free radical polymerizable component comprises at least two ethoxy, propoxy, or butoxy groups.

30190908V1

- 13. The radiation-curable composition of claim 10, wherein said first free radical polymerizable component comprises at least two ethoxy, propoxy, or butoxy groups.
- 14. The radiation-curable composition of claim 10, wherein said first free radical polymerizable component is selected from the group consisting of alkoxylated bisphenol A diacrylate, tripropyleneglycol diacrylate, polypropyleneglycol dimethacrylate, alkoxylated neopentylglycol diacrylate, alkoxylated hexanediol diacrylate, polytetrahydrofuran diacrylate, and alkoxylated trimethylolpropane triacrylate.
- 15. The radiation-curable composition of claim 10, wherein said radiation-curable composition comprises, relative to the total weight of the composition, more than 2 wt% of said first free radical polymerizable component.
- 16. The radiation-curable composition of claim 1, wherein said radiation-curable composition comprises, relative to the total weight of the composition, at most 15 wt% of said first free radical polymerizable component.
- 17. The radiation-curable composition of claim 1, wherein said radiation-curable composition comprises, relative to the total weight of the composition, 3-10 wt% of said first free radical polymerizable component.
- 18. The radiation-curable composition of claim 1, wherein said cationically polymerizable component is an epoxy resin.
- 19. The radiation-curable composition of claim 1, wherein said cationically polymerizable component includes a cyclohexene oxide component.
- 20. The radiation-curable composition of claim 1, further comprising a cationic photoinitiator.
- 21. The radiation-curable composition of claim 20, wherein said cationic photoinitiator comprises antimonate.

- 22. The radiation-curable composition of claim 10, further comprising a hydroxy-functional component.
- 23. The radiation-curable composition of claim 22, wherein said hydroxy-functional component is a polyether polyol.
- 24. The radiation-curable composition of claim 10, wherein said second free radical polymerizable component comprises at least 5 free radical polymerizable groups.
- 25. The radiation-curable composition of claim 10, wherein said ratio is greater than 1.07.
- 26. The radiation-curable composition of claim 10, wherein said ratio is greater than 1.2.
- 27. The radiation-curable composition of claim 10, wherein said composition, after cure, has a clarity of more than 90%.
- 28. A process for forming a three-dimensional object comprising rapid prototyping the composition of claim 10.
- 29. An object formed with the process of claim 28.
- 30. A process for improving, by a factor more than 1.03, the clarity of a product obtained by curing a radiation-curable hybrid composition, said process comprising:
 - (i) adding, prior to said curing, a compatible free radical polymerizable component to said hybrid composition.
- 31. The process of claim 30, wherein said compatible free radical polymerizable component is selected from the group consisting of
 - (a) non-aromatic free radical polymerizable components comprising a C₁-C₁₀ ether group, preferably at least two C₂-C₄ ether groups; and
 - (b) aromatic free radical polymerizable components comprising more than four C_1 - C_{10} ether groups, preferably more than four C_2 - C_4 ether groups; and

29

(c) hydroxyfunctional free radical polymerizable ester components.

30190908V1